

REMARKS

In response to the Office Action of May 4, 2007, careful consideration of this application in view of the above amendments and the following remarks is respectfully requested.

The Drawings:

In the Office Action, the Examiner objected to the drawings under 37 CFR 1.83(a) as allegedly not showing 1) driving portions and 2) coils.

In response to these objections, Applicants have amended the drawings to further depict (in a generic fashion) the coils that were described and supported in the specification. In addition, reference lines were added to direct to portions in the figure that already depict some elements. No new matter has been added.

As indicated, it is most respectfully submitted that some of the features were already shown in the figures. For example, it is noted that the figures do show the driving portions (e.g., the fins, etc., in the figures). As another example, as for “coils” it is noted that the power source 30 in FIG. 2 is described as being able to include coils, such as discussed, e.g., at page 12, line 16, which recites “power source 30” and line 30 which recites “power source or coils”).

The Claims:

In the Office Action, claims 23, 25 and 26 were rejected under 35 U.S.C. 112 as, allegedly being indefinite. In response to these rejections, the claims have been amended so as to even more clearly recite that which is claimed. While these amendments make the claims more cosmetically readable, these changes should not affect the broadest reach of the claims under the doctrine of equivalents.

Withdrawal of these rejections is respectfully requested.

The Rejections Based on References:

In the Office Action, claims 23, 25, and 26 were all rejected under 35 U.S.C. 103(a) over JP2003-961 (Houcho) in view of U.S. Patent No. 6,617,078 (Chia, et al.). These rejections are respectfully traversed.

First, the Patent Office admits that the Houcho reference does not teach a driving portion composed of polymeric actuator elements in which two metal layers are laminated through a polymeric electrolyte. Here, it is further noteworthy that the Houcho reference relates merely to an underwater toy system with a coil and power supply. On the other hand, the present invention involves comprises polymeric actuator elements, as a driving portion, in which two metal layers are laminated through a polymeric electrolyte situated there between. Accordingly, the Houcho reference relates to a wholly different structure.

Second, despite this serious difference, the Patent Office wrongly asserts that Chia, et al., teaches such an actuator element. It is

respectfully submitted that the Patent Office is incorrect. The Chia, et al., reference merely shows a structure for a "Lithium Ion Rechargeable Batter[y]." It does not teach or suggest that such a feature would be utilized as an actuator or driving portion that **physically moves** so as to drive the device. It is respectfully submitted that there is no teaching or suggestion in the references for the Patent Office's asserted combination. It is respectfully submitted that the Chia, et al. references is not an appropriateness reference because it only relates to a rechargeable lithium ion battery. There is absolutely no motivation for providing actuator elements and a driving portion to allow a model to move as described in the present application.

Third, for the Examiner's reference and further appreciation of the general technology, the following information is provided related to polymeric actuators. This information is provided to show some exemplary, and non-limiting, features of some polymeric actuators to facilitate the Examiner's understanding of this subject matter. This information is not, however, intended to limit the claims in any way.

In this regard, for the Examiner's reference, attached at **Appendix A**, is a copy of a page of the present assignee's web site at <http://www.eamex.co.jp/ion.html> (roughly translated to facilitate reference using BABLEFISH translation software of ALTAVISTA.COM).

In addition, also for the Examiner's understanding and reference, attached at **Appendix B** are some other informational pages describing some illustrative polymer actuators and actuators of the present assignee (EAMEX).

As shown, in some examples, a polymeric actuator element can include metal layers and polymeric electrolyte layers that operate to cause movement upon application of an electric charge. As the Examiner should appreciate, a polymeric actuator element **physically moves** by the very nature of the element. As such, this type of actuator is used to effect movement in the present application. The cited references are completely dissimilar and do not even remotely suggest such features.

Withdrawal of the present rejections is, thus, most respectfully requested.

Newly Added Claims:

New claims 27 to 44 depend from the above claims and, thus, should also be allowable. In addition, the new claims recite additional features that are clearly not taught or suggested by the references. Allowance of these new claims is also respectfully requested.

Concluding Remarks:

Early reconsideration and allowance are respectfully requested. In the event that any fees are now due, please charge our deposit account number 50-4080.

Respectfully submitted,

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By _____

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I, Stephen Parker, hereby certify that this document is being electronically filed, deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop Missing Parts address above, or being facsimile transmitted to the USPTO (571) 273-8300, on August 3, 2007.